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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,232	07/17/2002	Junji Nishigaki	Q68710	4633

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WASHINGTON, DC 20037

EXAMINER

DENTZ, BERNARD I

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 11/17/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,232

Applicant(s)

NISHIGAKI ET AL.

Examiner

Bernard Dentz

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 15 and 17-28 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) and 2 references.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicants have elected the cyanines of Gp. I. Although they have made the election with traverse they give no reasons. Thus the restriction requirement is made final for the reasons of record.

Non-elected claims 12 and 13 and the non-elected parts of claim 1 are withdrawn from consideration.

Claims 1, 3 and 5-10 are rejected under 35 USC 112 for failing to particularly point out the invention. The moiety represented by Q is infinite in scope.

Claims 1, 3 and 5-10 are rejected under the first paragraph of 35 USC 112 for not being enabled. The broadest invention which is enabled is the genus of claim 2 where both heterocyclic groups are ~~az~~aindoles.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Ficken et al.

British Patent 870,753 cited by applicants. It generically discloses methine and trimethine cyanine dyes of formula I containing a 7-azaindole moiety which may be substituted on the pyridine part thereof with lower alkyl. See p.1 for the formula and the definition of Y and D₁ etc. See specific Examples 15-21 where said pyridine part of the 7-azaindole (termed 3:4-diazaindene –2 in the reference) moiety is substituted by a methyl group. See especially Ex. 21.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Mikhailenko et al, Khimiya Geterotsiklicheskih Soedinenii.

It discloses compounds of formula VA a ^b and _^ on p. 949 where Z⁺ is as shown. They read on claim 2 when n is 1, m is zero, V4 and V5 form a benzene

ring which may be substituted, t is 1, s is zero and V9 and V10 form an optionally substituted benzene ring. The compounds are potentially useful in laser technology.

Claims 1-6, 8-10, 14, 15 and 17-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Usagawa et al, US Patent 5,057,406. It discloses 7-azaindole based cyanine dyes wherein the pyridine moiety may be substituted by sulfo, carboxy, hydroxy, halo, cyano etc. See col.3 and col.4, lines 28-31. Note that the pyridine nitrogen is quaternized by an acid or $-CH_2CH_2OR$ substituent which are reactive substituents which can form a covalent bond, an ionic bond or coordinate bond with a substance to be labeled.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-11, 14, 15 and 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usagawa et al, supra. If the genus taught by the reference is deemed too large to anticipate any of the above claims an obviousness rejection still pertains. Note that the specific compounds 1, 5, 8, 14, 15, 18, 22, 25, 26, 41 and 44 are homologs of the instant compounds and thus render them obvious.

Compound 44 of the reference renders obvious the genus of claim 11 since the broad disclosure teaches that the pyridine part of the azaindole moiety may be substituted by halo e.g.

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Claim16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Dentz whose telephone number is 703 308-4544. The examiner can normally be reached on Mon.-Fri. from 8:30 to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman, can be reached on 703 308-4698. The fax phone number for the organization where this application or proceeding is assigned is 703 308-4734.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1235.

B. Dentz

11-17-2003


BERNARD DENTZ
PRIMARY EXAMINER
GROUP 1625